IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS

CRYPTOPEAK SOLUTIONS, LLC,	)	Civil Action
	)	
Plaintiff,	)	No. 2:15-cv-01738-RWS-RSP
	)	
v.	)	Judge Robert W. Schroeder, III
	)	Mag. Judge Roy S. Payne
MACYS.COM, INC.,	)	
	)	***Electronically Filed***
Defendant.	)	

DEFENDANT MACYS.COM, INC.'S
MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM

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Defendant MACYS.COM, INC. ("Macys.com" or "Defendant") hereby moves to dismiss Plaintiff CryptoPeak Solutions, LLC's ("CryptoPeak" or "Plaintiff") Complaint for failure to state a claim upon which relief can be granted under Federal Rule of Civil Procedure 12(b)(6).

I. INTRODUCTION

CryptoPeak filed its Complaint on November 9, 2015 asserting infringement of claims 1-4 and 17 of U.S. Patent No. 6,202,150 ("the '150 Patent" or "patent-in-suit"), entitled "Auto-Escrowable and Auto-Certifiable Cryptosystems." (Dkt. 1, ¶ 19.) The '150 Patent purports to be generally directed to cryptography techniques used to encrypt and decrypt electronically transmitted data. '150 Patent, col. 1, ll. 6-12. CryptoPeak's patent has 59 claims, all of which are facially invalid for reasons set forth in this motion. CryptoPeak has asserted claim 1, and disclaimed the right to assert any claims other than the "potentially asserted claims" 1-4 and 17 ("the potentially asserted claims") in the future. (Dkt. 1, ¶ 20.)[1]

The asserted claims are invalid for indefiniteness under 35 U.S.C. § 112 because each claim improperly and explicitly ***recites both a method and an apparatus*** in violation of controlling Federal Circuit precedent and 35 U.S.C. § 101. It is well settled law that "***reciting both an apparatus and a method*** of using that apparatus renders a claim indefinite under section 112, paragraph 2. . . . [S]uch a claim 'is not sufficiently precise to provide competitors with an accurate determination of the metes and bounds of protection involved' and is 'ambiguous and properly rejected' under section 112, paragraph 2. This rule is well recognized and has been incorporated into the PTO's *Manual of Patent Examination Procedure*." *IPXL Holdings, L.L.C. v. Amazon.com,*

[1] In paragraph 20 of its Complaint, Plaintiff stated that it "does not assert any of the following claims of the '150 Patent in this case: Claims 5 through 16, and Claims 18 through 59 (collectively, the "Unasserted Claims"). Plaintiff will not assert the Unasserted Claims in this case in the future." (Dkt. 1, ¶ 20.) Because Plaintiff has unequivocally stated it will not assert the remaining claims of the '150 Patent, this Motion focuses on the asserted claims only. However, all of the claims of the '150 Patent are invalid under 35 U.S.C. §§ 101 and/or 112. To the extent Plaintiff were to amend its Complaint or otherwise attempt to assert other claims, Defendant reserves the right to address those claims.

Inc., 430 F.3d 1377, 1384 (Fed. Cir. 2005) (emphasis added) (citing and quoting *Ex Parte Lyell*, 17 USPQ 2d 1548, 1990 WL 354583, at *3 (BPAI 1990) (noting that in addition to being indefinite a claim "intended to embrace or overlap two different statutory classes of invention" is precluded by the express language of 35 U.S.C. § 101) (emphasis in original)). Here, the asserted claims violate these principles on the face. *See, e.g.*, '150 Patent, claim 1 ("A ***method and apparatus*** for generating . . . .") (emphasis added).

As an additional and independent basis to dismiss CryptoPeak's Complaint, the potentially asserted claims are invalid as claiming patent ineligible mathematical algorithms. The claims of the patent-in-suit are directed to the abstract idea of calculating according to a mathematical algorithm without further meaningful limitation. Patent claims that purport to patent an abstract idea are ineligible for patentability under 35 U.S.C. § 101. Therefore, the Court should dismiss CryptoPeak's Complaint for failure to state a claim on this basis as well.

Because the claims are invalid under 35 U.S.C. §§ 101 and 112 as a matter of law, CryptoPeak cannot succeed in obtaining any of the relief sought from Defendant in this lawsuit, and CryptoPeak's Complaint must be dismissed.

II. STATEMENT OF THE ISSUES

Whether the potentially asserted claims are invalid as being indefinite under 35 U.S.C. §§ 112 and/or 101 for improperly claiming two statutory categories of invention in a single claim, such that Plaintiff's Complaint should be dismissed with prejudice for failing to state a claim upon which relief can be granted.

Whether the potentially asserted claims are invalid as being directed to patent ineligible subject matter under 35 U.S.C. § 101, such that Plaintiff's Complaint should be dismissed with prejudice for failing to state a claim upon which relief can be granted.

III. LEGAL STANDARD

Rule 12(b)(6) provides that a party may move for dismissal of an action for failure to state a claim upon which relief can be granted. Fed. R. Civ. P. 12(b)(6). A complaint must be dismissed where the complaint does not "state a claim to relief that is plausible on its face." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). "When the allegation in a complaint, however true, could not raise an entitlement to relief, 'this basic deficiency should . . . be exposed at the point of minimum expenditure of time and money by the parties and the court.'" *Uniloc USA, Inc. v. Rackspace Hosting, Inc.*, 2013 WL 7393173, No. 6:12-cv-375 (E.D. Tex. Mar. 27, 2013) (quoting *Twombly*, 550 U.S. at 558 (2007) and granting 12(b)(6) motion to dismiss for invalidity under 35 U.S.C. § 101); *see also Neitzke v. Williams*, 490 U.S. 319, 326-27 (1989) (Rule 12 dismissal "streamlines litigation by dispensing with needless discovery and fact finding.").

Although the Court must accept as true all factual allegations, legal conclusions contained in the complaint are provided no deference and must be disregarded in deciding a motion to dismiss. *Iqbal*, 556 U.S. at 678; *see also Titanide Ventures, LLC v. Int'l Bus. Machines Corp.*, 4:12-CV-196, 2012 WL 5507327, at *2 (E.D. Tex. Oct. 18, 2012) ("the Court should identify and disregard any conclusory allegations for they are 'not entitled to the assumption of truth.'") (quoting *Iqbal*, 556 U.S. at 664), *report and recommendation adopted*, 4:12-CV-196, 2012 WL 5507316 (E.D. Tex. Nov. 14, 2012).

Whether a claim is indefinite under 35 U.S.C. § 112 is a question of law. *Atmel Corp. v. Info. Storage Devices*, 198 F.3d 1374, 1378 (Fed. Cir. 1999). Whether a claim is patent ineligible under 35 U.S.C. § 101 is likewise a question of law. *See, e.g., Bilski v. Kappos*, 561 U.S. 593, 601 (2010); *Loyalty Conversion Sys. Corp. v. American Airlines, Inc.*, 2014 WL 4364848, No. 2:13-cv-655, at *14 (E.D. Tex. Sept. 3, 2014) (Bryson, J., sitting by designation) (granting Rule 12(c)

motion for judgment on the pleading that asserted claims were patent ineligible under § 101); *Clear with Computers, LLC v. Dick's Sporting Goods, Inc.*, 2014 WL 923280, No. 6:12-cv-674, at *7-8 (E.D. Tex. Jan. 21, 2014) (same).

IV. THE POTENTIALLY ASSERTED CLAIMS ARE INVALID UNDER §§ 112/101 FOR IMPERMISSIBLY CLAIMING BOTH A METHOD AND AN APPARATUS

Each of the potentially asserted claims is invalid on its face for expressly requiring the claimed subject matter to simultaneously encompass both a "method" and an "apparatus." *See, e.g.*, '150 Patent, claim 1 ("A method and apparatus . . . ."). The preambles of the potentially asserted claims recite both a method **AND** an apparatus. '150 Patent, claims 1-4 17. The analysis should end here. By including such language, the patentees intended to impermissibly encompass two classes of statutory invention in a single claim. This is particularly evident in view of the patentees' inclusion of other, unasserted claims directed to a single statutory class. Under the rule established by *IPXL* and *Lyell*, the potentially asserted claims are, thus, invalid.

A. Legal Background

The Federal Circuit first held that claims "reciting both an apparatus and a method of using that apparatus renders a claim indefinite under section 112, paragraph 2" in *IPXL Holdings*, 430 F.3d at 1384 (citing *Lyell*, 1990 WL 354583 at *3 (BPAI 1990)); *see also E-Watch Inc. v. Apple, Inc.*, No. 2:13-cv-1061, 2015 WL 1387947 (E.D. Tex. Mar. 25, 2015) (Payne, M.J.); *SFA Sys., LLC v. 1-800-Flowers.com, Inc.*, 940 F. Supp. 2d 433, 454 (E.D. Tex. 2013) (Davis, C.J.) ("A single claim that recites two separate statutory classes of invention, e.g., 'an apparatus and a method of using that apparatus,' renders the claim indefinite under 35 U.S.C. § 112 ¶ 2."). Relying on *Ex Parte Lyell*, the Federal Circuit recognized that "the statutory class of invention is important in determining patentability and infringement. . . .[And], as a result of the combination of two separate statutory classes of invention, a manufacturer or seller of the claimed apparatus would not

know from the claim whether it might also be liable for contributory infringement because a buyer or users of the apparatus later performs the claimed method of using the apparatus." *IPXL*, 430 F.3d at 1384. When a claim recites two separate classes of invention "it does not apprise a person of ordinary skill in the art of its scope, and it is invalid under section 112, paragraph 2." *Id.*

Lyell further explained that the prohibition against claiming more than one statutory class of invention is rooted in 35 U.S.C. § 101:

> [T]he second paragraph of 35 USC 112 requires a claim to particularly point out and distinctly claim the subject matter which the appellant regards as his invention. However, the "invention" referred to in the second paragraph of 35 USC 112 is also subject to the requirements of 35 USC 101. This section of the statute requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (emphasis added). In the situation before us on appeal, it is clear that appellant's independent claim 2 is intended to embrace or overlap two different statutory classes of invention set forth in 35 USC 101. In our view, a claim of this type is ***precluded by the express language of 35 USC 101*** which is drafted so as to set forth the statutory classes of invention ***in the alternative only***.

Lyell, 1990 WL 354583 at *3 (underlined emphases in original, italics and bold emphases added). A patentee is free to separately claim a patentable method and product in the same patent, "but cannot properly cover them both in one claim." *Id.* at *5. There is simply "no basis for permitting a combination of two separate and distinct statutory classes of invention in a single claim." *Id.* at *4; *see also Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1374 (Fed. Cir. 2008) ("A single patent may include claims directed to one or more of the classes of patentable subject matter, but ***no single claim may cover more than one subject matter class.***") (emphasis added).

Moreover, the Federal Circuit has cautioned that courts are prohibited from engaging in any "claim saving" exercises to fix a patentee's improper choice of mixed subject matter language. *See Rembrandt Data Techs. LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011) ("We have

stated that '[t]his court, however, repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity.'") (quoting *Chef Am., Inc. v. Lamb–Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004) ("Even a nonsensical result does not require the court to redraft the claims of the ['290] patent. Rather, where as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated. . . . [W]e must construe the claims based on the patentee's version of the claim as he himself drafted it.") (citations and internal quotation marks omitted).

B. Each And Every Potentially Asserted Claim Explicitly Purports To Encompass Both A Method And An Apparatus

Because each potentially asserted claim begins with the language "[a] method **and** apparatus," the potentially asserted claims are invalid on their face. *See, e.g., Ex Parte Penske et al.*, Appeal No. 2008-1388, 2008 WL 4768089, at *1 (BPAI Oct. 31, 2008) (holding a claim invalid as indefinite because the plain language of a claim preamble recited a "marking system **and** process" without further analysis). The patentee's attempt here to ensnare both a method and apparatus creates ambiguity as to when the claim is infringed and is, thus, indefinite under § 112 and expressly precluded by § 101. *IPXL*, 430 F.3d at 1384; *Lyell*, 1990 WL 354583 at *3; *see also Microprocessor*, 520 F.3d at 1374 ("[N]o single claim may cover more than one subject matter class.").

The preamble of a claim is intended to provide the reader with the general subject matter of the claim. *See* Chisum on Patents § 8.06[1][b][i] ("The preamble is an introductory phrase that may summarize the invention, its relation to the prior art, or its intended use or properties."); *see also Catalina Marketing International, Inc. v. Coolsaving.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (noting that where the preamble does not constitute a claim "limitation" it provides the

"purpose or intended use of the invention."). Here, the preambles of the potentially asserted claims explicitly recite that the overarching subject matter of the claim is both a "method" and an "apparatus," signaling that the inventor believed the invention to encompass both classes of subject matter. '150 Patent, claims 1-4, 17.

This is unlike the case in *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, where a method claim preamble merely "recit[ed] the physical structures of a system in which the claimed method is practiced," which is permissible. *See* 520 F.3d at 1374-75. The disputed claim in that case recited a method of executing instructions **in** an apparatus,[2] *id.* at 1374, whereas the potentially asserted claims here recite "a method **and** apparatus." This is fundamentally different because the potentially asserted claims characterize the whole of the purported invention as being both a method **and** an apparatus.

CryptoPeak attempts to salvage its patently invalid claims by alleging in its Complaint that "[n]otwithstanding that they generically recite the existence of 'apparatus' in their preambles, each of the Potentially Asserted Claims is a method claim comprising certain steps that must be performed in order for infringement to occur." (Dkt. 1, ¶ 19.) While highlighting Crypotpeak's awareness of the potentially asserted claims' fatal flaw,[3] this allegation is a legal conclusion and, as such, must be disregarded in deciding this Motion. *See Iqbal*, 556 U.S. at 678; *Titanide*, 2012

[2] The claim in *Microprocessor* took the following form:

> 1. A method of executing instructions in a pipelined processor comprising:
>
> [structural limitations of the pipelined processor];
>
> the method further comprising:
>
> [method steps implemented in the pipelined processor].

520 F.3d at 1374.

[3] If the claim were so clearly a method, there would have been no reason for CryptoPeak to even make such an allegation.

WL 5507327, at *2 ("[T]he Court should identify and disregard any conclusory allegations for they are 'not entitled to the assumption of truth.'"); *see also Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

CryptoPeak is asking the Court to rewrite the potentially asserted claims to avoid the inevitable result of the patentees' poor claim drafting. *See E-watch*, 2015 WL 1387947 at *6 ("[T]hese are the words chosen by the patentee, and their plain meaning creates confusion as to whether the claim is infringed when the apparatus is made or sold, or when a user actually moves the apparatus."). Such "claim saving" practices are prohibited, and the Federal Circuit has repeatedly warned against it. *See Rembrandt*, 641 F.3d at 1339 ("We have stated that '[t]his court, however, repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity.'") (quoting *Chef Am., Inc.* 358 F.3d at 1374 ("Even a nonsensical result does not require the court to redraft the claims of the ['290] patent. Rather, where, as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated. . . . [W]e must construe the claims based on the patentee's version of the claim as he himself drafted it.")) (citations and internal quotation marks omitted). A conclusion that the potentially asserted claims are merely methods would improperly read out the recited "and apparatus" language. *See E-Watch*, 2015 WL 1387947 at *6 (E.D. Tex. Mar. 25, 2015) (Payne, M.J.) (noting that "requir[ing] the Court to redraft the claims and read the [disputed] words . . . out of the claims" would be improper.) (citing *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1362 (Fed. Cir. 2008)).

This is not a case where inclusion of the language "a method **and apparatus**" was a simple clerical mistake. The patentees clearly intended to draft the potentially asserted claims to

encompass both a method **and** an apparatus. In 48 of the 59 claims of the '150 Patent, the patentees recited both a "method and apparatus," while the remaining 11 claims were drafted to be directed to only a **single** statutory class of invention. *See* '150 Patent, claims 10, 12 (reciting only a method); claims 13-14, 46-48 (reciting only a cryptosystem); claims 19, 20, 22, 24 (reciting only an apparatus). The patentees clearly knew of the differences in statutory classes, and their attempt to encompass both a method and an apparatus within the scope of the claims cannot be excused as inadvertent. *See E-watch*, 2015 WL 1387947 at *6 (holding that "surrounding claim language contradict[ed] Plaintiff's interpretation [to read method steps as mere capabilities] because it indicates that the patentee understood how to draft claim language that referred to the capabilities of an element" as opposed to actual use by a user.)

For these reasons, the potentially asserted claims are not merely "method claims," but are directed to both a "method **and** apparatus," and are, thus, invalid under 35 U.S.C. § 112, second paragraph and/or § 101.

C. The Recited Method And Apparatus Render The Potentially Asserted Claims' Scope Ambiguous And Indefinite

As written, the potentially asserted claims create confusion because it is impossible to tell when the claim is infringed – upon use of a method, or upon creation of an apparatus capable of performing the method. *See IPXL*, 430 F.3d at 1384. For example, claim 1 of the '150 Patent recites "[a] ***method and apparatus*** for generating public keys and a proof that the keys were generated by a specific algorithm comprising the steps of . . . ." Is this claim infringed when a "method . . . for generating" comprising the steps following the transitional phrase of claim 1 is practiced? Or is the claim infringed when an "apparatus for generating" is made or programed to include a "specific algorithm" for performing the steps in the body of claim 1? Or is this claim even infringed when an "apparatus" is made that is merely capable of performing a "method . . .

for generating" according to the steps of claim 1? There is no way to tell which of these actions constitutes infringement, and, thus, whether the scope of this claim includes making an apparatus, practicing a method, or both. *See IPXL*, 430 F.3d at 1384 ("[I]t is unclear whether infringement . . . occurs when one creates a system that allows [the claimed function to be performed], or whether infringement occurs when the user actually uses" the system to perform the claimed function); *Lyell*, 1990 WL 354583 at *3.

Claims 2, 3, 4, and 17 contain the same ambiguity as claim 1. Each contains the same general structure as claim 1, initially reciting a "method and apparatus for generating" in the preamble, followed by a transitional phrase and the subsequent method steps. '150 Patent, claims 1-4, 17. Claim 17 further adds to the confusion by including the following transitional phrase to introduce the method steps: "then the user takes the following steps." This phrase underscores the ambiguity by requiring user action for every recited step. *See SFA*, 940 F. Supp. at 455 (explaining that the claims in *IPXL* and its progeny suffered from "true ambiguity" because those cases involved "apparatus claims incorporating steps where a user acts *upon the system*.") (emphasis in original); *see also* '150 Patent, claims 1, 2, and 4 (requiring a "user" to perform certain of the claimed the steps).

For at least these reasons, a person of ordinary skill in the art would not be able to tell whether infringement occurs upon the creation of an apparatus configured to perform the claimed steps, or upon practice of those steps. Beyond the facial indefiniteness from reciting mixed statutory classes, this further confirms why the claims must be held invalid under 35 U.S.C. § 112, second paragraph.

D. Mixed Statutory Class Claims Are Further Invalid Under § 101

In addition to being invalid under 35 U.S.C. § 112, second paragraph for being indefinite, however, the potentially asserted claims violate the prohibition of 35 U.S.C. § 101 against claiming

two or more statutory classes of invention. Although *IPXL* and its progeny focus on the fact that mixed statutory subject matter claims are indefinite because of their inherent ambiguity, the basis of the prohibition is also rooted in 35 U.S.C. § 101.

Ex Parte Lyell, the BPAI decision upon which *IPXL* relied, stated that, in addition to being unpatentable under § 112, mixed statutory class claims were precluded by § 101. *Lyell*, 1990 WL 354583 at *3. The Board explained that § 101 "requires that in order to be patentable the invention must be a 'new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.'" *Id.* (emphasis in original). Thus, in the Board's view, a claim drafted to embrace two different statutory classes of invention "is precluded by the express language of 35 USC 101 which is drafted so as to set forth the statutory classes of invention in the *alternative only*." *Id.* (emphasis added). The courts and the USPTO have recognized this limitation under § 101. *See Collaboration Properties, Inc. v. Tandberg ASA*, No. C 05-01940, 2006 WL 1752140, at *7 n.3 (N.D. Ca. June 23, 2006) (Discussing *IPXL* and opining that "[t]he Federal Circuit might instead have relied on 35 U.S.C. section 101, which requires that ***each claim cover one*** of a disjunctive list of classes of invention.") (emphasis added); *Ex Parte Ruman, et al.*, Appeal No. 2012-010464, 2014 WL 7274915, at *2-3 (PTAB Dec. 19, 2014) ("35 U.S.C. § 101 does not sanction individual claims directed to more than one statutory class. . . . Accordingly, we reject [the claims] as unpatentable under 35 U.S.C. §§ 101 and 112, second paragraph."); *Manual of Patent Examination Procedure* § 2173.05(p)(II) (2010) (citing *Lyell*, 17 USPQ 2d at 1551) ("Such claims may also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a 'process' nor a 'machine,' but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only.").

Given that § 101 is a threshold analysis, *see In re Bilski*, 545 F.3d 943, 950-51 (Fed. Cir. 2008), when mixed statutory subject matter claims by their plain language, explicitly characterize the fundamental nature of the invention as being two different statutory classes of invention (*e.g.*, method and apparatus), such as at the very outset of the preamble, such claims *per se* violate 35 U.S.C. § 101. Accordingly, because the potentially asserted claims characterize the overall invention as both a "method **and** apparatus" in their preambles, the potentially asserted claims should be further held invalid under 35 U.S.C. § 101 for attempting to overlap two different statutory classes of invention within a single claim.

V. U.S. PATENT NO. 6,202,150 IS INVALID UNDER 35 U.S.C. § 101 BECAUSE IT CLAIMS NOTHING MORE THAN AN ABSTRACT IDEA

A. § 101 Issues Are Properly Disposed Of At The Pleading Stage

Patentability under 35 U.S.C. § 101 is a threshold legal issue. *In re Bilski*, 545 F.3d at 950-51. Patent eligibility focuses on the plain language of the claims. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1334 (Fed. Cir. 2012) ("In considering patent eligibility under § 101, one must focus on the claims."). To be actionable, a patent's claims must be drawn to patent eligible subject matter under § 101. *In re Bilski*, 545 F.3d at 950. Accordingly, the § 101 inquiry is properly raised on a motion to dismiss under Rule 12(b)(6). *See, e.g., Ultramercial, Inc. v. Hulu, LLC*, No. 2010-1544, 2014 WL 5904902, at *713 (Fed. Cir. Nov. 14, 2014) (affirming grant of "pre-answer motion to dismiss under Rule 12(b)(6) without formally construing the claims.").

B. Claim Construction Is Not Necessary To Conclude That A Patent Does Not Recite Eligible Subject Matter

Claim construction is not required to conduct a § 101 analysis. *See Clear with Computers*, WL 923280 at *3-4; *see also Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014) (finding subject matter ineligible without performing claim construction); *Bilski*, 561 U.S. at 611-613 (same); *CyberFone Sys., LLC v. CNN Interactive Group, Inc.*, 558 Fed. Appx. 988, 991 n.1

(Fed. Cir. 2014) (non-precedential) ("There is no requirement that the district court engage in claim construction before deciding § 101 eligibility."); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1273 (Fed. Cir. 2012) ("[W]e perceive no flaw in the notion that claim construction is not an inviolable prerequisite to a validity determination under § 101."). To the extent the patentee has asserted a need for claim construction, it is appropriate to adopt a construction "most favorable to Plaintiff" to resolve a question of patent-eligibility. *Data Distrib. Techs., LLC v. BRER Affiliates, Inc.*, 2014 WL 4162765, No. 12-4878 (JBS/KMW), at *8 (D.N.J. Aug. 19, 2014).

C. Abstract Ideas Are Not Patent Eligible Under 35 U.S.C. § 101

Although 35 U.S.C. § 101 defines patent eligible subject matter broadly as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," "this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 134 S. Ct. at 2354 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 186 L. Ed. 2d 124, 133 (2013)). These three excepted categories are "fundamental principles [that] are 'part of the storehouse of knowledge of all men ... free to all men and reserved exclusively to none.'" *In re Bilski*, 545 F.3d at 952 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). They "are 'the basic tools of scientific and technological work.'" *Alice*, 134 S. Ct. at 2354 (quoting *Myriad*, 133 S. Ct. at 133). "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it, thereby thwarting the primary object of the patent laws." *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 182 L. Ed. 2d 321 (2012)) (internal quotation marks omitted).

1. The Two-Part Alice *Test*

In *Alice*, the Supreme Court set forth a two-step test for determining whether a claim is directed to patent eligible subject matter—(1) determine whether the claim is directed to a law of nature, natural phenomena, or an abstract idea; and (2) if so, determine whether the claim possesses "an element or combination of elements that is 'sufficient to ensure that the [claim] in practice amounts to significantly more than a patent upon the [ineligible concept] itself."' *Alice,* 134 S. Ct. at 2355 (quoting *Mayo,* 132 S. Ct. at 1294) (some brackets in original). To determine whether a claim is directed to an "abstract idea," the courts must examine the claim to determine whether it recites "an idea, having no particular concrete or tangible form." *Ultramercial, Inc. v. Hulu, LLC,* 772 F.3d 709, 715 (Fed. Cir. 2004) ("The abstract ideas category embodies the longstanding rule that [a]n idea of itself is not patentable.") (*see also, Alice,* 134 S. Ct. at 2355 (quoting *Gottschalk v. Benson,* 409 U.S. 63, 67 (1972) (internal quotation marks omitted)). For step two, it is insufficient to limit a claim to a "particular technological environment" or a particular field of use. *Id.* at 191. If the claim does not include sufficient additional features beyond the abstract idea so as to reflect an inventive concept, it is invalid under § 101.

2. Conventional Computer Technology Does Not Render Abstract Ideas Patent Eligible

The "mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice,* 134 S. Ct. at 2358 (noting that such recitation is akin to a mere instruction to implement an abstract idea on a computer (citing *Mayo,* 132 S. Ct. at 1301)). Put another way, it is insufficient to merely "[s]tat[e] an abstract idea while adding the words 'apply it with a computer.'" *Id.*

Computer-based limitations do not meaningfully limit a claim where they do not "play a significant part in permitting the claimed method to be performed, rather than function solely as

an obvious mechanism for permitting a solution to be achieved more quickly." *DealerTrack*, 674 F.3d at 1333) (quoting *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010)) (internal quotation marks omitted). Nor is a computer-based limitation sufficient to confer patent eligibility if the computer is not "integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not." *Bancorp*, 687 F.3d at 1278 (citing *SiRF Tech.*, 601 F.3d at 1333). Against this backdrop, the law is clear that computer limitations do not "play a significant part in permitting," and are not "integral" to, the performance of the claimed invention where: (1) the claims "d[o] not specify how the computer hardware ... [is] specially programmed to perform the steps claimed" and are thus "silent as to how a computer aids the method, the extent to which a computer aids the method, or the significance of a computer to the performance of the method," *DealerTrack*, 674 F.3d at 1333; (2) the claimed "computer[] can be programmed to perform very different tasks in very different ways," thus revealing that the computer is not significant to the performance of the claimed invention, *id.* (quoting *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008)) (internal quotation marks omitted); or (3) the claimed computer is not fundamentally required to perform the underlying process or method, *see CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375-76 (Fed. Cir. 2011) (computer implemented fraud detection method not patent eligible where claimed-computer performed only a purely mental process).

Similarly, the mere recitation of "well-understood, routine, conventional" computer functions or components does not add any meaningful limitations to claims. *See Mayo*, 132 S. Ct. at 1291 (citing *Parker v. Flook*, 437 U.S. 584, 590 (1978)); *see also Alice*, 134 S. Ct. at 2358. Thus, computer implemented functions like "data-gathering," sending or receiving information over a network, or visual presentation of information do not save an otherwise patent ineligible

claim. *See, e.g., buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network--with no further specification--is not even arguably inventive."); *CyberSource*, 654 F.3d at 1370 ("We have held that mere data-gathering steps cannot make an otherwise non-statutory claim statutory.") (quoting *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989) (internal brackets, quotation marks, and citations omitted)).

3. Claims To Mathematical Formulas Improperly Preempt The Use In All Fields

Mathematical algorithms, including those executed on a generic computer, are abstract ideas. *See Benson*, 409 U.S. at 64. "A mathematical formula in the abstract is nonstatutory subject matter regardless of whether the patent is intended to cover all uses of the formula or only limited uses." *Diamond v. Diehr*, 450 U.S. 175, 192 n. 14 (1981). This is because "an attempt to patent a mathematical formula" or fundamental principle "would preempt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea." *Bilski*, 561 U.S. at 612. Future discovery must not be preempted "by improperly tying up the future use of these building blocks of human ingenuity." *Alice*, 134 S. Ct. at 2354; (quoting *Mayo*, 132 S. Ct. at 1300) (internal quotation marks omitted). "Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of 'additional featur[e]' that provides any 'practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.'" *Alice*, 134 S. Ct. 2347, 2358, (2014) (quoting *Mayo*, 132 S. Ct. at 1292).

D. Overview Of The Potentially Asserted Claims

The potentially asserted claims all relate to a method and apparatus for using a mathematical algorithm for generating public keys and a proof to provide confidence that the keys were generated properly. The claims use a random number generator supplied by a user's computer to compute the keys. Some of the claims only recite using system parameters generally, in place of the random number generator.

Claim 1, for example, recites:

> 1. A method and apparatus comprising: the user's system generating a random string of bits based on system parameters;
> the user running a key generation algorithm to get a secret key and public key using the random string and public parameters;
> the user constructing a proof being a string of bits whose public availability does not compromise the secret key and wherein said constructing of said proof requires access to said secret key, but at the same time said proof provides confidence to at least one of a plurality of other entities that said public key was generated properly by the specified algorithm, and wherein said confidence is gained without having access to any portion of said secret key.

'150 Patent, claim 1.

As explained in detail below, this representative claim is directed to nothing more than the use of a software algorithm performed by a user's computer. It provides no additional limitations beyond applying that abstract idea/algorithm on a generic computer, as prohibited by *Alice*. The only technical elements recited are expressly described in the patents as conventional generic prior art computer components and systems. The claims "do not, for example, purport to improve the functioning of the computer itself. . . . [n]or do they effect an improvement in any other technology or technical field." *See Alice*, 134 S. Ct. at 2359. The claimed method can be performed by any number of possible machines, and is not limited to any field or application, preempting entire industries and unduly hindering innovation. As such, representative claim 1 is invalid for failure to satisfy the requirements of 35 U.S.C. § 101.

Claims 3 and 17 are almost identical to claim 1 in substance, with the only differences being trivial. *See* '150 Patent, claim 3 (directed to a method and apparatus for publishing keys while adding no additional requirement in the body to address publishing), claim 17 (requires that a private key and public key should be chosen or calculated in undefined domains named F1 and F2 — possibly a drafting error on behalf of patentee). The other potentially asserted claims of the '150 Patent also merely add insignificant and generic details to the foregoing and do not alter

the fundamental concept encompassed by claim 1. For example, claim 2 adds the abstract step of "engaging in a protocol", which involves insignificant post-solution activity recited at a high level of generality and covering all practical applications of the mathematical algorithm encompassed. Claim 4 is equivalent to claim 1, requiring only the step of sending a proof instead of simply constructing one.

E. The '150 Patent Claims Are Directed To The Abstract Idea Of Performing A Mathematical Calculation

In *Benson*, the Supreme Court concluded that the challenged claims were drawn to an abstract idea, noting that "[t]he mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself." *Benson*, 409 U.S. at 71–72. A mathematical formula itself is not *per se* evidence of invalidity of a claim, but without additional limitations, they are "preexisting, fundamental truth[s]" found to be patent-ineligible abstract ideas. *See, e.g.*, *Alice*, 134 S. Ct. at 2356; *Flook*, 437 U.S. at 594–595. The claims addressed in *Benson* are a kind of "generic formulation." *Id.* at 65. A "generalized formulation" or "algorithm" is "a procedure for solving a given type of mathematical problem." *Id.* The process set forth in the present claims is also a generalized formulation for generating key pairs and a proof from a related set of data elements, some public and randomly generated on a computer. For example, the preamble of all five of the potentially asserted claims admits they are drawn to nothing more than an algorithm. The claims include limitations directed only to mathematical algorithms, such as "generating a random string of bits," running a "key generation algorithm," and constructing "a proof." Claims 2, 3, 4, and 17 are similarly directed to generic mathematical formulations. As explained above,

these formulations are similar to the other types of basic concepts that have been found by the courts to be abstract. Therefore, the claims are directed to an abstract idea.

F. The Elements Of The Potentially Asserted Claims Do Not Amount To Significantly More Than The Abstract Idea

The fundamental concept set forth in the claims of the ’150 Patent is to use a general purpose computer to perform generalized mathematical formulations, such as calculating a private key, secret key, public key, and an accompanying proof. That concept is abstract, and any limitations in addition to the abstract idea are merely generic or well known, with generalized high-level requirements, claimed to encompass every use of the elements, such as “public key”, “private key”, and “proof”—each of these known since humans started exchanging secrets.

When viewed individually, or as an ordered combination, the claims as a whole do not add significantly more to the abstract idea of a procedure for solving a given type of mathematical problem. Each of the technical elements recited in the potentially asserted claims are well known general purpose cryptography functions that existed well before the patent-in-suit: (i) “public keys,” as recited in the claims’ preamble; (ii) a “random string of bits”; (iii) “key generation algorithm”; (iv) “secret keys” and “private keys”; and (v) a “proof.”

Specifically, public keys, as the background of the patent-in-suit acknowledges, were ubiquitous at the time of the filing of the ’150 Patent. See ’150 Patent, col. 1, ll. 16-21 (“Public Key Cryptosystems (PKC’s) allow secure communications between two parties who have never met before. The notion of a PKC was put forth in (W. Diffie, M. Hellman, ‘New directions in cryptography’, IEEE Transactions on Information Theory, 22, pages 644-654, 1976).”

Likewise, “a random string of bits,” is simply a pseudo-random number generated routinely at the time of the filing of the patent-in-suit by a generic computer “using a strong random number generator.” ’150 Patent, col. 7, ll. 24-26.

The background of the patent-in-suit discusses numerous "key generation algorithms," including several popular algorithms at the time, Diffie-Hellman and RSA. *See* '150 Patent, col. 1, ll. 62-64. ("Micali's preferred embodiment discloses how to convert the Diffie-Hellman PKC, and the RSA PKC into Fair PKC's.").

"Private keys" and "secret keys" have been known since humans began practicing the art of writing and solving codes and were routinely used in symmetric key encryption systems well before the filing of the '150 Patent, and also as the inverse to the well-known public keys at the time of the filing of the '150 Patent. *See* '150 Patent, col. 2, ll. 44-50, ("the user and the trusted authorities engage in a protocol to generate the user's public and private keys. In so doing, the authorities are convinced that no subliminal information is contained in the resulting public key. The user is also convinced that the keys are escrowed properly. This system is similar to the Fair Diffie-Hellman PKC, except for the added overhead of this protocol."), and '150 Patent, col. 4, ll. 11-12, ("securing and management of database(s) of secret keys or secret shares on behalf of users.").

The patent also does not to purport to have invented the generic idea of calculating a "proof." As discussed in the patent, the general technique of non-interactive zero-knowledge proofs was known in the art of cryptography at least as early as ten years before the filing of the patent-in-suit. *See* '150 Patent, col. 3, lines 32-36, ("A heuristic for how to construct such proofs was shown in (A. Fiat, A. Shamir, 'How to Prove Yourself: Practical Solutions to Identification and Signature Problems', CRYPTO '86, pages 186-194, Springer-Verlag, 1987)").

Recognizing how much of the claimed method was merely utilizing well known, conventional encryption fixtures, what remains as the potential "inventive concept" in the claims of the '150 Patent recites no more than a series of high-level abstract elements that do not add to,

enhance, or depart from the routine and conventional elements. Further, the patent admits that the applicants did not invent any of these elements at such a high level. It is insufficient to add steps which "consist of well understood, routine, conventional activity," if such steps "when viewed as a whole, add nothing significant beyond the sum of their parts taken separately." *Mayo*, 132 S. Ct. at 1298. "Purely conventional or obvious [pre]-solution activity is normally not sufficient to transform an unpatentable law of nature into a patent eligible application of such a law." *Id.* (quoting *Flook*, 437 U.S. at 590) (internal quotation marks omitted). "Other cases offer further support for the view that simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable." 132 S. Ct. at 1300.

Claim 2 of the '150 Patent adds the abstract limitation of "engaging in a protocol" which involves purely conventional, insignificant post-solution activity that does not transform the claim into a patentable process. *See Mayo,* 132 S. Ct. at 1299 (quoting *Flook*, 437 U.S. at 589, 590). ('"[P]ost solution activity' that is purely 'conventional or obvious,' the Court wrote, 'can[not] transform an unpatentable principle into a patentable process.'"). Simply put, the protocol has no result and is only a recitation of the intended purpose of a proof, as in claim 1. In addition, the protocol is recited at a high level of generality to cover all practical applications of the mathematical algorithm encompassed. Claim 4 of the '150 Patent adds the conventional step of sending, instead of simply constructing, a proof. These limitations "are being employed for basic functions, including storage, transmitting and receiving information . . . such components are not 'specific' or 'special purpose' computers." *Joao Bock Transaction Sys., LLC v. Jack Henry & Assocs.*, 76 F. Supp. 3d 513, 523 (D. Del. 2014). As such, "the patents do not claim an improvement to the computer, but rather describe how to apply the abstract idea . . . to pre-existing,

conventional computers." *Cloud Satchel, LLC v. Amazon.com, Inc.*, 76 F. Supp. 3d 553, 564 (D. Del. December 18, 2014).

The claims also do not recite the application of the abstract idea in a concrete setting, but instead simply recite naked algorithms that can be performed untied from any particular machine or apparatus. For example, claim 1 merely requires that a user run the recited algorithms on a "system," but provides no requirements or limitations for applying it in a meaningful way to the user system. It is well settled that "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358; *see also Ultramercial*, 772 F.3d at 717 ("[A]dding a computer to otherwise conventional steps does not make an invention patent-eligible . . . . Any transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the analysis."); *Accenture Global Services v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("[S]imply implementing an abstract concept on a computer, without meaningful limitations to that concept, does not transform a patent-ineligible claim into a patent-eligible one.") (citing *Bancorp*, 687 F.3d at 1280). The potentially asserted claims are invalid under § 101 because they do no more than recite the abstract idea of a generalized mathematical formula using well known general purpose computer technology.

The '150 Patent does not purport to have invented any improvement to the user's system in combination with the mathematical formulas which have been claimed. Indeed, the specification's lack of any specified computer or system as they relate to the claimed "user's system" is indicative of the generic nature the claims. *See* '150 Patent, Figs 1-7. Although the user's system that is present in the claims is undoubtedly a general purpose computer, its generic nature is further emphasized by the generic use of the term in relation to other systems in the patent,

such as in reference to an escrow system ('150 Patent, 4:19), a secure file system (5:56), a cryptographic system (6:62), a certificate and escrow authority system (8:65), a verifying system (9:19), a public key system (10:36), an auto-recoverable and auto-certifiable (ARC) cryptosystem (10:34), a multi-escrow authority system (11:44), a key escrow systems (11:51), and a file repository system (11:52). Thus, the claims are directed to nothing more than the use of a software "brain" tasked with calculating a mathematical algorithm for a user, and provides no additional limitation beyond applying an abstract idea, restricted to a generic computer.

The additional elements of the claims do not amount to significantly more than the abstract idea. For example, determining the value of an unspecified system and inputting public variables is merely routine data gathering and merely extra-solution activity that could be attached to almost any formula. By failing to explain how the system and public variables are selected, these elements of the claim fail to improve the recited technology in a meaningful way. The variables do not add any meaningful limits on use of the equation.

G. The Potentially Asserted Claims Preempt Every Practical Use Of The Abstract Idea

With no limitations to a field of invention, the claims encompass every conceivable application of the mathematical innovation. "Allowing the asserted claims to survive would tie up any innovation related to performing" the claimed generic formulas and "would, in turn, monopolize the 'abstract idea.'" *Joao Bock*, 76 F. Supp. at 524. The claims conceivably encompass every field of use, from tax preparation to streaming media, and encompass performance on every imaginable technology, both known and unknown, including websites, mobile phones, and point of sale machines. The claims potentially also cover every possible use of an encryption algorithm, such as electronic funds transfer, digital signatures, authentication, electronic cash, electronic credentials, electronic credit, and electronic debit. Such broad

preemption is not permissible under 35 U.S.C. § 101 because it would disproportionately tie up the use of these fundamental concepts. *See e.g., Cloud Satchel,* 76 F. Supp. 3d at 564 ("The pre-emption inquiry focuses on whether the patent 'would risk disproportionately tying up the use of the underlying ideas.'").

H. The Potentially Asserted Claims Do Not Satisfy The Machine-Or-Transformation Test

Finally, while "not the sole test for deciding whether an invention is a patent-eligible 'process'", the Supreme Court has described the "machine-or-transformation test" as a "useful and important clue . . . for determining whether some claimed inventions are processes under § 101." *Bilski,* 561 U.S. at 604. Here, the machine-or-transformation test confirms that the potentially asserted claims of the patent-in-suit are invalid as directed to non-statutory subject matter. With respect to the first prong of the test, none of the potentially asserted claims are tied to any specific machine. The claims require only conventional, general purpose computer components (*e.g.*, an unspecified "user's system"), which is insufficient to render a claim patent eligible under 35 U.S.C. § 101. *See Ultramercial,* 772 F.3d at 716-17. Regarding the second prong of the test, none of the potentially asserted claims cause an article to be transformed into a different physical state or thing. In fact, the claims merely recite running an abstract algorithm on a general purpose computer. Data is never actually even encrypted in the claims.

VI. CONCLUSION

Because the potentially asserted claims of the '150 Patent explicitly purport to encompass both a "method and apparatus," they are invalid as being indefinite under 35 U.S.C. § 112. By encompassing two statutory classes of invention, the potentially asserted claims create ambiguity as to the scope of the claims and render them indefinite. Moreover, the potentially asserted claims

are invalid under 35 U.S.C. § 101, which prohibits the claiming of more than one statutory class of invention in a single claim.

Further, because the claims of the '150 Patent do not encompass patent-eligible subject matter under § 101, the only plausible reading of the claims of the patent-in-suit points to patent ineligibility. The claims of the '150 Patent are directed to the abstract idea of a general purpose computer to perform generalized mathematical functions. The limitations of the claims recite nothing more than this abstract idea, along with conventional or routine activity or generic computer technology. As such, the claims are not meaningfully limited to something significantly more than the abstract idea itself.

Accordingly, Defendant respectfully requests that the Court dismiss this case with prejudice for failure to state a claim upon which relief can be granted because each potentially asserted claim is invalid under 35 U.S.C. §§ 101 and 112.

Dated: February 15, 2016

Respectfully submitted,

THE WEBB LAW FIRM

s/ *Kent E. Baldauf, Jr.*
Kent E. Baldauf, Jr.
Daniel H. Brean
James J. Bosco, Jr.
Anthony W. Brooks

One Gateway Center
420 Ft. Duquesne Blvd., Suite 1200
Pittsburgh, PA 15222
412.471.8815
412.471.4094 (fax)
kbaldaufjr@webblaw.com
dbrean@webblaw.com
jbosco@webblaw.com
abrooks@webblaw.com

Attorneys for Defendant

CERTIFICATE OF SERVICE

I hereby certify that on the 15th day of February, 2016, I electronically filed the foregoing **MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM** with the Clerk of the Court and the same has been served on all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5(a)(3).

THE WEBB LAW FIRM

s/ *Kent E. Baldauf, Jr.*
Kent E. Baldauf, Jr.